RECENT TENDENCIES IN VALUATIONS FOR RATE-MAKING PURPOSES

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The investor in public utility securities has frequently expressed regret that there has been no definite, authoritative statement of the principles of the "rate-making" value. The facilities for the regulation of rates have, within the past few years, been materially increased. Commissions, with broad powers of regulation, are now provided in most states. The procedure with which investigations may be started is relatively simple. A rate case is no longer the indication of widespread dissatisfaction in the community, but more often the result of individual complaint. Nor have the possible consequences in any way been lessened. The inquiry in rate cases is usually directed toward the income and thus the "investment" value of the entire public utility. Under prevailing practices the testimony does not concern itself principally with the reasonableness of the rate, but with the size of the resulting return upon the investment. This situation has developed the need for some unqualified declaration of principles by which the prospective investor may assure himself in a preliminary manner of the clear title of the investment to which he is about to contribute. With a number of utilities, inquiries as to the reasonableness of prevailing rates have already run their course and the relation of the investment to the customer has been more or less definitely determined. In the vast majority of cases, however, these assurances are still lacking. The examination of decisions as to the elements of value for rate-making purposes are, therefore, no longer of theoretical or academic interest, but have assumed large practical importance.

The indefiniteness in decisions as to the principles of "rate-making" value are probably due to two reasons: The equities of investor and customer are a complex relationship which cannot readily be encompassed and defined as a single arithmetical process to be applied to any set of facts. The court of last resort, moreover, in reviewing the determination of value by local authorities and commissions, has

not been concerned so much with the examination of economic doctrines or the wisdom of legislative policies of regulation as with the application of a particular rate to the property rights involved. It is, therefore, not surprising that the language in the leading case, Smyth *vs.* Ames, 169, U.S. 466, decided in 1898—

> We hold, however, that the basis of all calculations as to the reasonableness of rates to be charged by a corporation maintaining a highway under legislative sanction must be the fair value of the property being used by it for the convenience of the public. And in order to ascertain that value, the original cost of construction, the amount expended in permanent improvements, the amount and market value of its bonds and stock, the present as compared with the original cost of construction, the probable earning capacity of the property under particular rates prescribed by statute, and the sum required to meet operating expenses, are all matters for consideration, and are to be given such weight as may be just and right in each case. We do not say that there may not be other matters to be regarded in estimating the value of the property—

should be reiterated rather than more definitely stated in the Minnesota rate cases, 230 U.S. 352, 434, decided June 9, 1913—

> The ascertainment of that value is not controlled by artificial rules. It is not a matter of formulas, but there must be a reasonable judgment having its basis in a proper consideration of all relevant facts.

It would be reasonable to suppose, however, that the state commissions dealing with the detailed evidence as to values would proceed in an identical manner and adopt common practices and theories. But this is far from being the case, although there are certain tendencies which point toward uniformity. The earlier rate decisions have already been summarized in various texts and it would be repetition to refer to them in detail in a short discussion. Attention is therefore directed, in this article, to the more recent cases covering the latter part of the year 1912 and the year 1913, which particularly reveal departures from previous rulings. Comparisons of this kind are seldom conclusive. It is probably true that a study of the actual facts and conditions surrounding each particular case with which the commission was undoubtedly familiar, but to which there are only meager clews in the reading of the decision, would probably disclose that what rate regulation is endeavoring to accomplish is full and abstract justice, and that much of the theoretical background for these decisions has been filled in and elaborated in extended dicta,

after and not before the actual decision has been reached. In no other way is one able to explain the great diversity of viewpoint with which one is confronted in any comparative analysis of the so-called principles of value for rate-making purposes.

It is reasonable to assume also that if any single economic law underlies the proper rate-making value it will not be established until every available viewpoint and application have been exhausted. Economic principles of money, of international trade and of taxation have taken a long time to mature and have been preceded by innumerable theories and propagandas before they have finally reached the stage where generalization has been proper. Such sweeping and conflicting conclusions as those of Professor John H. Gray, former director of investigation of the National Civic Federation, before the American Economic Association, that

> on any sound principle there should be no valuation for rate regulation but history, that is, a statement of outlay, of money spent and services rendered, nothing more. . . . . As an agent, the utility exercises the right of eminent domain, must give an account of its stewardship, is subject to continuous control, is liable for compulsory service, and must coöperate with all other public agents of its principal, the state,

or those of a committee of the American Society of Civil Engineers upon the subject of valuation for purposes of rate making that

> . . . . the committee believes a valuation of an old property based on its actual cost to be generally impracticable, making it necessary to adopt the cost of reproduction method. . . .
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> In the opinion of the committee it would be entirely just and equitable . . . to provide by law that future public service properties should be valued on the basis of their actual reasonable existing investment, and to determine or limit rates upon such a valuation if the service rendered permits,

seem both, in the light of present decisions and practices, premature.

In the recent rate cases the cost of reproduction new has continued to be the factor of value given the greater attention. It is accepted as an important element in the Minnesota cases, 230 U.S. 352, 452:

> The cost-of-reproduction method is of service in ascertaining the present value of the plant, when it is reasonably applied and when the cost of reproducing the property may be ascertained with a proper degree of certainty. But it does not justify the acceptance of results which depend upon mere conjecture.

But estimates of the increased value of right-of-way real estate are limited to the normal market value of land in the vicinity, and the court cautions against the use of hypothetical additions over and above such normal values:

> Assuming that the company is entitled to a reasonable share in the general prosperity of the communities which it serves, and thus to attribute to its property an increase in value, still the increase so allowed, apart from any improvements it may make, cannot properly extend beyond the fair average of the normal market value of land in the vicinity having a similar character. Otherwise we enter the realm of mere conjecture. We, therefore, hold that it was error to base the estimates of value of the right-of-way, yards and terminals upon the so-called "railway value" of the property. The company would certainly have no ground of complaint if it were allowed a value for these lands equal to the fair average market value of similar land in the vicinity, without additions by the use of multipliers, or otherwise, to cover hypothetical outlays.

A better recognition of the limitations of appraisal by engineers and the necessity of providing against omissions in estimating costs other than those of mere labor and material have led to an increase in the percentage allowance for so-called overhead items of the construction, including superintendence, legal expenses, interest during construction, engineering and contingencies. It is noted that the Wisconsin commission, which, in its earlier cases, allowed 12 per cent for such items, has finally made an increase of its allowance to 15 per cent. In its decision City of Milwaukee *vs.* Milwaukee Gas Light Company, decided August 14, 1913, 12 W.R.C.R. 441, 444, the commission held:

> The proper allowance for this item cannot be stated in general since it depends upon many variable conditions, particularly upon the make-up of the unit prices to the sum of which it is to be applied. All of this overhead might be added to the individual items, but since a great deal of it is not easily assigned to any particular item, it is customary to add it to the total. Practice, however, is not at all uniform as to what should properly be included in unit prices and what should be carried as overhead. A knowledge of the make-up of unit prices is therefore absolutely essential to the determination of the proper allowance for overhead.

The commission has pointed out in the case City of Milwaukee *vs.* The Milwaukee Electric Railway and Light Company, 10 W.R.C.R. 1, 107, 108, that its unit prices rather than the percentage allowance include some of the so-called overhead items:

As regards the unit costs used in appraising the inventory, it is to be noted that these are in most instances five year average prices, designed to include contractor's and sub-contractor's commissions, the enhanced cost of piecemeal as compared with continuous construction, and the cost of handling material and labor until both items enter into the actual construction.

Care is also taken in pointing out in the recent case Oshkosh Water Works Company *vs.* the City of Oshkosh, 12 W.R.C.R. 602, 608, 609, that these allowances are not fictitious:

The allowance under discussion is not made to cover fictitious expenses, something by way of good measure as it were, to swell the physical valuation, but is designed to cover, as near as may be, only those expenses which would actually be incurred in the construction of a plant and which would not otherwise be taken into consideration. The fact that the original plant was built under contract would only go to show that the company met these expenses in the contract price instead of directly. An explanation of this allowance in a recent case before the commission is so pertinent in this connection, that it is here quoted:

> "Apart from the expense of labor and material incurred in constructing the plant, many additional costs must be met *which do not appear in the appraiser's inventory of tangible property.* Among these are the expenses of organization preliminary to the construction of the property, usually consisting of engineering and legal expenses; the expenses of supervising, including the wages of all contractors, superintendence and necessary administrative organization; contingent costs due to loss of time and material and unexpected obstacles occurring during the progress of construction; and, finally, the expenses of financing the construction, consisting principally of interest on money advanced prior to operation. Construction costs of this character are analogous to the overhead or expense burden encountered in the analysis of operating costs. Allowances for such expenditures are usually made in appraisals of public utility properties, and have in all instances been made by the commission."

It is noted that the California Railroad Commission in the case Palo Alto *vs.* Palo Alto Gas Company, decided March 12, 1913, adds 15 per cent as an overhead percentage to the detailed appraisal. The New Jersey Board of Public Utility Commissioners, which in earlier cases adopted 12 per cent as the proper percentage addition, in the Passaic gas case, decided December 26, 1912, places the allowance at 17.6 per cent. The Nebraska State Railway Commission in the Lincoln telephone case, decided June 26, 1913, states:

The commission is convinced that the amount of 17.2 per cent for general expenditures allowed by our engineers is conservative, particularly in view of the manner in which they have built up their unit cost.

In the Brooklyn Borough gas case, decided July 8, 1913, the New York Public Service Commission, first district, evidently placed the percentage addition at 15.4 per cent.

The much mooted question whether the cost of reproduction new should be depreciated has been considered in various cases. Justice Hughes in delivering the opinion of the court in the Minnesota rate cases, 230 U.S. 352, holds that when an estimate of value is based upon the cost of reproduction new the extent of existing depreciation should be shown and deducted, thus approving the rule in the Knoxville case, 212 U.S. 1:

> The master allowed the cost of reproduction new without deduction for depreciation. It was not denied that there was depreciation in fact. . . . . But it was found that this depreciation was more than offset by appreciation; that "the roadbed was constantly increasing in value;" that it "becomes solidified, embankments and slopes or excavations become settled and stable and so the better resist the effects of rains and frost;" that it "becomes adjusted to surface drainage, and the adjustment is made permanent by concrete structures and rip-rap;" and that in other ways, a roadbed long in use "is far more valuable than one newly constructed." It was said that "a large part of the depreciation is taken care of by constant repairs, renewals, additions and replacements, a sufficient sum being annually set aside and devoted to this purpose, so that this, with the application of roadbed adaptation to the needs of the country and of the public served, together with working capital . . . . . fully offsets all depreciation and renders the physical properties of the road not less valuable than their cost of reproduction new." And in a further statement upon the point, the "knowledge derived from experience" and "readiness to serve" were mentioned as additional offsets.
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> We cannot approve this disposition of the matter of depreciation. . . . It would seem to be inevitable that in many parts of the plant there should be such depreciation, as for example in old structures and equipment remaining on hand. And when an estimate of value is made on the basis of reproduction new, the extent of existing depreciation should be shown and deducted. . . . If there are items entering into the estimate of cost which should be credited with appreciation, this also should appear, so that instead of a broad comparison there should be specific findings showing the items which enter into the account of physical valuation on both sides.
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> It must be remembered that we are concerned with a charge of confiscation of property by the denial of a fair return for its use; and to determine the truth of the charge there is sought to be ascertained the present value of the property. The realization of the benefits of property must always depend in large degree on the ability and sagacity of those who employ it, but the appraisement is of an instrument of public service, as property, not of the skill of users. And when particular physical items are estimated as worth so much new, if in fact they be depreciated, this amount should be found and allowed for. If this is

not done, the physical valuation is manifestly incomplete. And it must be regarded as incomplete in this case.

The New York Public Service Commission, second district, in the Buffalo Gas Company case, decided February 4, 1913, evidently places little weight upon the cost of reproduction value as a basis for rate making, but raises an interesting question as to its attitude toward the Knoxville rule:

If the cost of reproduction new were to be taken as the basis upon which the rate is to be computed, we would likely be compelled to deduct therefrom the accrued depreciation in obedience to the rule laid down by the United States supreme court in Knoxville *vs.* Knoxville Water Company (212 U.S. 1), whether we considered that rule economically sound or otherwise. The uncertainties in this case as to original cost and cost of reproduction new, as well as to the actual condition of the physical property, make a discussion of the proper handling of depreciation in a rate case entirely academic. It is clear that the treatment of depreciation in any given case depends upon facts which are not clear in this case, and to lay down principles which cannot be applied would serve no useful end. Our views on this important question which was much discussed during the hearings will be more appropriate in other cases before us in which the facts are more clearly ascertainable.

The New York Public Service Commission, first district, in the Brooklyn Borough Gas Company case, decided July 8, 1913, does not deduct the full accrued depreciation in determining a fair value of the property for rate-making purposes.

The argument that a depreciated plant renders service identical with that of a new plant and that its value for purposes of rate making should therefore be identical, is advanced in the recent decision of the Montana Public Service Commission, decided November 3, 1913:

. . . . It will be obvious that there can be no fixed percentage of depreciation applicable to a utility that had been "kept up" from year to year by constant effort, and the purchase of improved devices, as compared with one that had been allowed to deteriorate through neglect, hence the principle of an arbitrarily established measure of depreciation is untenable. . . . . Let us assume that an investment is made in 1903 of $100,000 under a twenty-year franchise, rate of interest allowable 10 per cent per annum, and figuring 5 per cent per annum depreciation. At the end of ten years, or in 1913, the property will have depreciated $50,000 and has a remaining value of a like amount. Then, if rates are made, based on the depreciated value, they must be one-half of the original rates, although the service may be just as efficient as it ever was, and in ten years, more, the physical value of the plant would be nil, and likewise upon the same basis of reasoning, the utility would not be permitted to charge anything.

A contrary view to this proposition is expressed by the California Railroad Commission in the case Palo Alto *vs.* Palo Alto Gas Company, decided March 12, 1913:

To the theory expressed, that as long as a plant can do its work, it should be regarded for rate-making purposes as having 100 per cent value, this commission cannot give adherence.

The same view is expressed by the supreme court, appellate division, of New York in People ex rel. Kings County Lighting Company *vs.* Willcox, 141 N.Y. Supp. 677, 683:

Mr. Mathewson as *amicus curiae* files an interesting brief presenting an elaborate argument in support of the proposition that as it is conceded that the plant of the relator operates at 100 per cent of efficiency there should be no deduction for so-called "accrued depreciation." This term is used to designate, somewhat inartificially, the liability presently accrued toward the ultimate cost of replacement of still efficient apparatus. He therefore repudiates the concession to scrap value and claims that as the company, being a public service corporation, must always keep its plant up to efficiency, and must replace property when worn out, it is entitled to a rate based upon 100 per cent efficiency because it will never be allowed to capitalize replacement but must provide it when necessary. It therefore must be allowed to provide a replacement fund out of its earnings. He argues that it makes no difference to the consumer whether that fund is actually accumulated and on hand or not, because the replacement must be made, if there is such a fund, from it; if not, by the stockholders directly. If, on the other hand, the valuation of the tangibles is reduced by a percentage, in this case 21 per cent, it can never be provided for in the only proper way—out of earnings.

We are unable to adopt Mr. Mathewson's interesting theories for these reasons:

(1) It seems to be thoroughly established that the value of the tangible property upon which the company is entitled to a rate which will procure a fair and just return is the present value; that is, at the time of the appraisement for rate-making purposes.

(2) That in the absence of accurate evidence as to actual value the cost of reproduction new takes the place thereof.

(3) That as the property being valued is not new, in order that "cost of reproduction new" may represent the actual condition—the amount presently invested—there must be a deduction therefrom.

(4) That this represents the amount required to replace apparatus still in use, but in process of wearing out, at the end of useful service.

(5) That this allowance for depreciation has been made in various kinds of cases where present value is required to be estimated.

The New Jersey Board of Public Service Commissioners in applying the Knoxville rule limits its deduction in the Passaic gas case, de-

cided December 26, 1912, to the depreciation obtained by observation and inspection, a deduction somewhat in excess of 4 per cent. It states:

> In so far as physical property is concerned, it appears to be well settled that the proper valuation is the present value as obtained by deducting depreciation. We are confronted, however, with the contrasted methods of estimating depreciation referred to above, and we must decide whether theoretical depreciation by inspection should be deducted. Undoubtedly an allowance for theoretical depreciation will much exceed the depreciation obtained in the other way.

And in a later case, Gately and Hurley *vs.* D. & A. T. & T. Co., decided January 7, 1913, this same commission elaborated upon its reasons for such deductions. These are, in substance, that a public service corporation is indebted to the utility for certain replacements and that this indebtedness, when the circumstances and conditions clearly indicate that it can be carried out, must be taken into consideration when determining the value for rate-making purposes.

> The considerations adduced in the preceding paragraph fail to take due cognizance of the fact that a public utility lies under a peculiar obligation not similarly incumbent upon the ordinary business concern. This obligation consists in the continuous requirement of putting back into the tangible equipment such items as are necessary from time to time to afford to consumers service in quality and extent equal to the service which could be afforded by a brand new plant of the same magnitude. This obligation to replace said items does not allow the public utility to obtain the funds therefor from increased rates or charges, nor from the issue and sale of additional securities. . . . . The magnitude of the utility's responsibility is therefore the sum of the unexpired service value of tangible property *plus* the pecuniary liability to make replacements as needed from its own pocket. As its responsibility is measured by a sum in excess of the unexpired service value of its tangibles, it would seem to us that the equitable base upon which it is entitled to a return is in excess of the unexpired service value of its apparatus, and approaches as a limit the total replacement cost new of its tangible property.

The commission, however, points out that where there is greater assurance of the prompt and adequate addition of needed items of replacement, such as is possible where the corporation has accrued a sufficient reserve, less consideration should be given to the deduction for accrued depreciation than is the case where the corporation "simply lies under the naked obligation to make such replacement as required." Such a rule it holds is in keeping with the Knoxville rule:

While therefore it may be only a first approximation to justice in distinguishing between utilities of the two contrasted classes, a deduction in the case of the less meritorious or less capably projected utility may well be made. Where such deduction is moderate in extent, and serves only to cover such expired service value as has resulted demonstrably from age and wear, we are of opinion that said deduction may fairly be made. While we are not confident that in the Knoxville water case the supreme court of the United States had before it any record of each and every consideration properly to be considered in the matter of making deductions from the replacement value new of tangible property, it is tolerably clear that this deduction or abatement here proposed is wholly in keeping with the valuation rule that seemingly may be deduced from that opinion. Such abatement or deduction is only a fraction of the total expired service value of tangible property in this particular case. This moderate reduction has also this advantage: that it is based upon certainly ascertained inspection or investigation, and not upon the more or less conjectural allowances for depreciation estimated by tables purporting to give the expectation of life of various parts of the utility's plant. . . . .

Such also has been the finding of the New Hampshire Public Service Commission in the Berlin Electric Light Company case, decided August 30, 1913:

We do not hold that the full amount of depreciation should in every case be deducted from the cost of reproduction. It is merely one of the facts to be considered in making a finding of fair value. It stands in the same category as original cost of physical properties, other necessary early expenditures, present reproduction cost of physical properties, and other facts concerning which inquiry is made, all of which should be determined as accurately as possible, but none of which has a uniform fixed value in each case. There may be cases where plants well conceived and well managed have suffered depreciation which in fact represents a part of the cost of developing the business to a point where a fair return can be secured. In other cases, as, for example, where adequate returns have been received to afford a fair return and to maintain a depreciation reserve, but have been entirely paid out in dividends, the entire amount may properly be deducted from present cost of reproduction in coming to the final conclusion as to fair value. Between these two extremes the proper course will vary according to the circumstances in each case. But in every case it is desirable to determine, for the purpose of consideration, the full depreciation as accurately as possible.

A similar rule, conversely stated, that the depreciation fund of the corporation is properly an asset of the utility to be considered in determining the value for rate-making purposes, is that held by the United States district court for the district of Arizona, in the case Wm. P. Bonbright et al. *vs.* W. P. Geary et al., a case on appeal from

the ruling of the Corporation Commission of Arizona, in the Phoenix case, dated November 19, 1913:

> This brings us to a peculiar feature of this case. There was on hand in the treasury of the company at the time of the valuation of the plant the sum of $64,292.67, accumulated for the purpose of meeting the expense of current repairs and for replacing such parts of the property as had been worn out and the life of the part ended. The fund had been withheld from the stockholders that it might be used in preserving the plant in good condition and in proper efficiency. This was good business judgment on the part of the officers of the corporation and must be approved. Public service corporations are to be encouraged in maintaining their plants in a proper state of efficiency. We are of the opinion that the Corporation Commission was in error in its estimate of depreciation of this plant and particularly was in error in omitting this fund from its valuation of the plant.

This also, it appears, has been the practice of the Wisconsin Railroad Commission in its rate cases.

A notable departure in the recent decisions from what hitherto had almost uniformly been the rule with state commissions relates to the inclusion of the cost of removing and relaying paving over all mains in any determination of the cost of reproduction new. Although it appears that such an allowance had been specifically made in the Consolidated Gas Company case 157 Fed. 849, and that such revisions had been affirmed in 212 U.S. 19, commissions such as New York Public Service Commission, second district, in the Buffalo gas case, February 4, 1913, New Jersey Board of Public Utility Commissioners in the Passaic gas case, December 26, 1912, and the Wisconsin Railroad Commission in City of Ashland *vs.* Ashland Water Company, 4 W.R.C.R. 273, 306–308, and cases following have cited and evidently followed the example of excluding such paving cost in Cedar Rapids Gas Light Company *vs.* City of Cedar Rapids, 120 N.W. Rep. 966, 970, and limited the allowance for paving to the costs actually incurred by the utility, and excluded paving laid subsequent to the laying of mains.

In a case on appeal from a decision of the New York Public Service Commission, first district, the New York supreme court, appellate division, in People *vs.* Willcox, 141 N.Y. Supp. 677, 681, has held that such allowances are properly included in the value for rate-making purposes. Citing the Consolidated Gas Company cases, Justice Clarke, speaking for the court, states:

It seems to me that we ought to regard that question as settled. The fact that these streets have been paved and the region generally improved has caused sales of land, the building of houses, and the increase in population, which have enabled the company within the last few years to make profits, and declare dividends which for many years it was unable to do. The argument that streets paved or unpaved make no difference in the earning power of a gas company is unsound. The earning power of a gas plant depends upon its constituency. If it has nobody to sell gas to, it can make no profits; and, if there are no decent streets, there will be few people. The value of a plant of any kind is certainly affected by its location and the demand for its products. If a new company undertook to install a duplicate plant, the cost of repaving under the present streets would properly be allowed for. Hence it is a necessary element of reproduction value. It is a valuable advantage which the present owner has which a prospective buyer would have to pay for. Like increased land values a school of thought might condemn it as "unearned increment," but the law does not yet refuse to include it in its definition of property capable of ownership and entitled to protection.

Such an allowance is also affirmed by the Wisconsin supreme court in Appleton Water Works Company *vs.* Railroad Commission, 154 Wis. 121, but there is excluded paving over service pipes upon the theory that such paving would under common practices be laid by customers of a new plant.

Cost of reproduction must mean the cost which will be necessarily incurred by a reasonably prudent and careful man, using ordinarily careful business methods, in reproducing a plant of equal efficiency. Anything which under such a conduct of the business would cost nothing to reproduce cannot logically be included. It is not denied that if the city or a new water company were to establish a new plant the consumers could be required, as a condition of receiving water service, to do the work in question, and even furnish the pipe. . . . . So it seems that there would be no question but that it would be entirely practicable, and in fact the only reasonably prudent policy, for a new company to require consumers to lay their own service pipes.

This is not the case where land or other property of value has been voluntarily donated to the old company. With regard to such property it has been held in cases involving the fixing of rates that it is rightfully to be considered in arriving at the cost of reproduction. This result is reached on the idea that a new company could not count on receiving such gifts. Whether the logic of these cases be correct or not we do not decide, but in any event the principle does not apply to expenses which may legally be assessed, and in the exercise of good business judgment ought to be assessed, against the consumer. For purchase purposes at least the only expenses which should be considered in the estimate of the cost of reproduction are those which are reasonably necessary in a prudently conducted reproduction.

The principle of including the cost of removing and relaying all paving is accepted "as probably settled in this state" by the Wisconsin Rail-

road Commission in the Oshkosh Water Works case, 12 W.R.C.R. 602, 662.

Somewhat akin to the inclusion of the cost of disturbing paving in the value of pipe, is the question of appreciation of real estate. It has been the practice of the New York Public Service Commission, first district, to allow the present value of real estate in its valuation for rate-making purposes, but to include also the annual appreciation as income.

It is a matter of particular interest that the state supreme court, appellate division, People *vs.* Willcox, 141 N.Y. Supp. 677, 687, has placed its stamp of disapproval upon this theory:

> In its calculation of income, however, it has included an item of $35,000 as the annual increase in the value of the land of the company. This we regard as erroneous. The land is used for the business of the company, and is appropriate therefor. So long as the land is held and used for such purpose increase in value cannot be considered as income or as available for the payment of debts, taxes or dividends.

While it appears that the California Railroad Commission has not adopted a similar practice, dicta in a recent case, Application of North Coast Water Company, decided December 3, 1913, seem to indicate that it has given the matter consideration. Commissioner Thelen states:

> While it is not necessary to decide this point here for reasons which will hereinafter appear, I desire at this point to draw attention to this question of the value to be assigned to land in rate-fixing inquiries, which question is one of the most important which can possibly arise in a rate-fixing inquiry. This question tests squarely the correctness of the so-called reproduction value or present value theories on the one hand and the original cost or investment theory on the other. In this connection I desire to refer to the language of Mr. Justice Van Fleet in San Diego Water Company *vs.* San Diego, 118 Cal. 556, who expresses what he believes to be the fundamental relationship between the public and a public utility, which is one of principal and agent. At page 570, Mr. Justice Van Fleet says:
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> "As we have said, it is not the water or the distributing works which the company may be said to own, and the value of which is to be ascertained. *They were acquired and contributed for the use of the public; the public may be said to be the real owner and the company only the agent of the public to administer their use. . . . . It is the money reasonably and properly expended in the acquisition and construction of the works actually and properly in use for that purpose, which constitutes the investment on which the compensation is to be computed.*"

The foregoing conclusion was worked out by Mr. Justice Van Fleet logically and on principle from the fundamental relationship existing between the public and its public utilities. The use of the present value or reproduction value theories does not spring in any way out of that relationship and has no necessary connection with it. As Mr. Justice Van Fleet clearly points out, the use of either the present value or the reproduction value theories may be as clearly unjust to the public utilities on the one hand, in case prices have gone down, as it is to the public on the other hand, in case prices have gone up. In logic and justice, the public utility should receive a return on the moneys reasonably and properly expended in the acquisition and construction of its works actually and properly in use to carry out its agency—no more and no less. If care is exercised in thus ascertaining the valuation on which a return is to be allowed and if a liberal return is then allowed on that basis, as is the practice of the California commission, the utility will be receiving full justice while the consumer on the other hand will be paying no more than he ought reasonably to be called upon to pay to his agent.

The "unearned increment" has also been referred to as a factor of value for rate-making purposes by the Massachusetts Board of Gas and Electric Light Commissioners, in the Attleborough petition, decided February 7, 1913, and has in effect been expanded until it comprises the whole single tax theory:

There is a growing recognition of the truth of the proposition that a public service company is not entitled to a return upon the unearned increment in value of its real estate, but investment out of profits which it has been able to make solely through the general growth of the community which it serves has many similar attributes. It will commonly be found that a company's surplus is based on managerial skill and foresight, needlessly high rates or the general prosperity of the community; or, more frequently, on two or more of these combined; and while it may be difficult to determine what proportion is justly attributable to any one of these causes, there can be little question that the general growth of the community is an important factor. . . . . It is difficult to see why the reasonable amount of return or the reasonable rate of return based upon the full value of the company's property should not be affected in the same manner by that portion of the investment made from what may be termed the unearned increment in its profits as by the unearned increment of value in its real estate; in other words, the reasonable rate of return upon a company's entire investment is lower where an appreciable part is derived from the two sources described than where it is entirely derived from the contributions of the shareholders in their payments for its stock.

To these theories the New York Public Service Commission, second district, has expressed dissent in the Buffalo gas case, decided February 4, 1913:

. . . . what is called the fixing of the value of the property in the public service for the purpose of rate making is not a fixing of value in any proper sense of that word as it is correctly used in our language. It is a determination of what under all the facts and circumstances of the case is a just and equitable amount upon which the return allowed to the corporation is to be computed. If the time the determination is made happens to be at or near the time the plant is put in operation, the investment or original cost may be the predominant factor. If the time of determination is remote from the time of investment, the factor of appreciation or diminution in values arising from changes in costs of labor and materials may enter largely into the result. If the plant is unreasonably disproportionate in size to the service required of it, the cost of reproduction new cannot be the sole test. If the actual investment has been reckless and extravagant, the owners should bear the loss and not the public. If the general scale of prices and values in the community has been increased or diminished since the plant was built, the owners may be fairly called upon to share the general diminution; and on the other hand, may justly demand a share in the general appreciation to which the existence of their property has, it may fairly be assumed, contributed at least its proportionate share.

And this conclusion is substantiated in Fuhrmann *vs.* The Cataract Power and Conduit Company, decided April 2, 1913, wherein the commission points out that it declined to recognize or capitalize past deficits upon the ground "that it produced the somewhat curious result that the greater the loss the greater the value of the property."

A similar finding is made by the New Jersey Board of Public Utility Commissioners in the Passaic gas case:

. . . . If, in the past, this gas company, out of the rates exacted from consumers, had met its operating expenses and depreciation, and in addition thereto had obtained enough to pay returns to investors, and to build an actual structure used in the business, would this structure aforesaid be the lawful property of the company? The answer, it seems to us, must be in the affirmative. If the company had paid out, in addition to other payments to investors, dividends equal to the cost of building this structure, and then had issued additional stock in value, equal to the cost of this structure, in order to repossess itself of the money required to build it, there can be no doubt that the structure built out of the proceeds of the additional securities thus sold would be the lawful property of the company. It would be none the less the company's lawful property if built out of current earnings without the issue of additional securities. . . . . It is true that the cost of new business in this last decade has been charged to operation and paid out of rates. But as we have indicated above, the business thus acquired must be regarded as a legitimate part of the property of the company. We cannot equitably project back into the unregulated past a norm of prices that might today be regarded as fair and adequate, and assume that actual rates exacted in the past, in so far as they exceed what are now deemed fair, have not lawfully become the property of the

company. If these high rates in the past have been employed by the company to acquire an intangible property in the shape of extensive patronage, that expectation of patronage is theirs, and on its fair value the company is entitled to a return. It may or may not be a subject of regret that regulation was so long deferred; but deferred regulation is no excuse for refusing at present to allow a fair return upon what is the lawful property of the company.

And these conclusions seem to be established in the decision in the Minnesota rate cases, 230 U.S. 352, 454.

There is no better illustration of the effect of carrying the theory of "principal and agent" to its logical conclusion than that presented in the Superior case, decided by the Wisconsin commission on November 13, 1912. It appears that the real estate was purchased and a large-sized plant constructed during a "boom" period and "that no more property was purchased than was actually necessary at the time nor greater amounts paid than the prevailing market prices." Expenditures measured by standards at that time were apparently legitimate and necessary. The subsequent slow period of recovery after the panic in 1893 developed large deficits upon the actual investment. It is significant that the commission's ruling is a citation to a case in which it had occasion to recognize appreciation rather than depreciation of land values.

This commission has had occasion in former cases to pass upon the question of appreciation of land values. It was held in the Madison case:

That the law as well as our social system recognizes such gains in practically all other undertakings is evident from the fact that rents and interest charges usually vary with the natural increase in the value of the property they cover. As the cost of reproduction of a plant usually plays perhaps the most important part in determining its value, it is more than likely that the owners would have to bear losses in case land and other property had depreciated instead of appreciated. It would seem only just that the rule would work both ways. . . . . In view of these facts there would seem to be good ground, from both a legal and economic viewpoint, for giving such appreciations in value consideration in appraising public utilities. At any rate we cannot now see good reasons upon which to exclude these elements from the appraisal of utility properties. State Journal Prtg. Co., *vs.* Madison G. & El. Co., 1910, 4 W.R.C.R. 501, 579.

Original cost or investment is recognized as an important, if not determining, factor in the cases of the New York Public Service Commission, second district, in the Buffalo Gas and the Cataract Power and Conduit Company cases. It has likewise evidently been given

consideration in the decision of the Wisconsin commission in the Milwaukee fare cases, 10 W.R.C.R. 1.

The exclusion of going value as an element of the value for rate making by the New York Public Service Commission, first district, is ruled to be in error by the state supreme court, appellate division, in Kings County *vs.* Willcox, 141 N.Y. Supp. 677, 681. Justice Clarke points out that while it is true that the United States supreme court has not directly decided the propriety of including going value in fixing the value of the property of a public utility for rate-making purposes, it has done so in purchase cases:

> I am unable to perceive a logical difference between allowing "going value" in the valuation of a plant when it is to be taken entirely by the public and allowing the same element when valuing the same plant for rate-making purposes. In each case the thing to be done is the fair appraisement of present value. What difference in principle can there be because in one instance all is taken for the use of the public and in the other the public limits the earnings? In the case at bar the commission says it "disallowed this claim in determining fair value, ... but did consider it in fixing the rate of return." If so, there is no proof of that fact in the record.

The basis of determining going cost or value by past deficits laid down by the Wisconsin commission in the Antigo case 3 W.R.C.R. 623, is evidently accepted by the California and New Jersey commissions. The California Railroad Commission in the case Palo Alto *vs.* Palo Alto Gas Company, decided March 12, 1913, while recognizing such costs, reserves decision as to whether this element of value should be added to the capital account or amortized in the near future. It states:

> That there are certain actual costs incurred in developing the business during its early stages, for which costs the utility is entitled to be reimbursed, just as clearly as it is entitled to a return on the physical portions of its plant, seems to be too obvious for argument. The investor must go into his pocket to meet one kind of cost as clearly as the other. There are two schools of thought with reference to the manner in which the so-called "going concern" value or "development cost" should be met. The supporters of one school are of the view that these items should be added to capital account, while those of the other school believe that they should be taken care of by rates higher than would otherwise be in effect, during the first years of the utility's existence. The difficulty with the first view is that its adoption will result in the increase of the permanent capital account and the consequent payment of higher rates for all time to come. The difficulty with the latter view is that it casts upon the patrons during the first years the duty of paying rates even

higher than the usual relatively high rates which are paid at the outset of a utility's history. I am of the opinion that such costs, legitimately and wisely incurred, should be taken care of in some way, but the exact method to be pursued, and the extent to which consideration should be given to such items, will depend upon the facts of each particular case. It might well be, for instance, that if the utility is unwisely conceived or struggles against unusual difficulties, the cost of developing the business including the early losses may run up to almost the entire value of the physical plant, if not in excess thereof. It may happen, also, that while in one case the addition of these costs to capital account might be perfectly fair, in another case justice will require that these costs be reimbursed out of higher rates during the first few years, or that some combination of these theories be adopted.

Going cost is recognized as a proper addition to the rate-making value by the New Jersey Board of Public Service Commissioners in the case Gately & Hurley *vs.* D. & A. T. & T. Co., decided January 7, 1913, and in the Passaic gas case, decided December 26, 1912, and such inclusion has been affirmed in the appeal case 87 Atl. (N.J.) 651, decided on July 1, 1913. In the former case the commission stated:

. . . . it appears just and reasonable that a fair present day estimate of the capital necessarily and judiciously sunk in establishing the business and not thereafter recouped from revenue should enter as an element into the base upon which a fair return should be allowed. Not to include such part of the outlay or investment as is necessarily and judiciously made at the start in canvassing for and enlisting customers, or as is necessarily and wisely incurred by reason of foregoing returns during the construction period when money is locked up, acts to repel future enterprises from similar ventures.

That the value used as the basis for taxation must be taken into consideration as an element in fixing the valuation for rate-making purposes is well brought out in the case of the Maryland Public Service Commission, Bachrach et al. *vs.* Consolidated Gas, Electric Light and Power Company, decided January 13, 1913, in which it was held that the value of $5,000,000 placed upon the easements of the company in the streets of Baltimore is a portion of the assets of the utility upon which it is entitled to a reasonable return.

These comparisons summarize the significant changes appearing in the year 1913 and the latter part of the year 1912, in the more important decisions discussing "rate-making" value. The conclusions which seem proper from such a comparative review are as follows:

1. When appraisals of the cost of reproduction new are considered in determining the present value for rate-making purposes, experience

has proven the necessity of making more liberal additions for overhead percentages, not to cover mere conjectural values, but to include costs which do not appear in the appraisor's inventory.

2. When the present value for rate-making purposes is based upon the cost of reproduction new, deduction may properly be made for the depreciation in value. The amount of such deduction, however, may vary with the care with which the owners of the property or corporation have provided against such depreciation and there is a tendency to measure the deduction by inspection rather than theoretical estimates of expired life. Where the owners of the property or corporation have given evidence of their responsibility to replace depreciated property, such fact may be taken into consideration in determining value for rate-making purposes. Likewise the reserve accrued by the owners of the property or corporation to offset depreciation is properly considered an asset of the utility for rate-making purposes.

3. Where the cost of reproduction new is determined, inclusion is properly made for the cost of repaving over mains, even though it has not been necessary for the utility to disturb such paving during the course of construction.

4. Where the present value for rate-making purposes is determined, inclusion must be made for appreciation as well as depreciation of real estate. It does not seem proper that any portion of such appreciation should be construed as income upon which dividends or taxes may be paid. With few exceptions the recent proposal to deduct the so-called "unearned increment" from the value for rate-making purposes upon the theory of a relation of "principal and agent" is dissented from upon the ground that such a policy would carry with it the necessity of underwriting past losses. As yet no attempt has evidently been made to apply this principle in practice.

5. There has been a reiteration and elaboration of the necessity of including going concern value in the present value for rate-making purposes.